

REMARKS

Amendments

Amendments to the Claims

Applicant's claimed invention is directed toward motion estimation that generates motion vectors for video compression as illustrated in Figure 1 and described in paragraphs 16-19 on pages 6-7 of Applicant's specification as originally filed. Applicant has amended the claims to clarify the type of motion estimation being claimed. No new matter has been added as a result of these amendments because they are supported, *intra alia*, in paragraphs 23-25 on pages 8-9 of Applicant's specification as originally filed .

Rejections

Rejections under 35 U.S.C. § 101

Claims 12-19

Claims 12-19 stand rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter because the preambles are not in a particular format. The Examiner appears to be reading MPEP § 2106.01(I) as setting forth the only acceptable computer readable medium claim preamble. Applicant respectfully submits that it is not necessary to include the term "steps" in a computer readable medium claim for the claim to be statutory. In fact, it is well known that a computer processor performs operations, not steps. In addition, because it is well-known that a computer program is made up of instructions, and that a computer contains a processor, specifying that instructions are executed by a processor does render a computer readable medium claim statutory.

Nonetheless, in the interest of advancing prosecution, Applicant has amended the claims to claim computer program instructions that cause a processor for a computer to perform operations. Accordingly, Applicant respectfully submits that the invention as claimed in amended claims 12-19 is statutory subject matter, and respectfully request the withdrawal of the rejection of the claims under 35 U.S.C. § 101.

Rejections under 35 U.S.C. § 102(e)

Claims 1-4, 6, 12-15, 17, 20-23 and 26-30

Claims 1-4, 6, 12-15, 17, 20-23 and 26-30 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Carlbom, U.S. Publication 20030033318. Applicant does not admit that Carlbom is prior art and reserves the right to challenge the reference at a later date.

Carlbom discloses indexing events in video for subsequent search and retrieval. A particular event is tracked across frames of video by estimating the motion of the event in one frame and defining a search area for the event in the next frame based on epipolar constraints.

As amended, Applicant claims a search area that is defined by a desired correlation between efficient compression and semantic accuracy, and the use of matching pixels in such a search area to compute a motion vector. Because Carlbom is concerned solely with indexing video and does not disclose motion vectors or video compression, Carlbom cannot be properly interpreted as teaching or suggesting Applicant's invention as claimed in claims 1-4, 6, 12-15, 17, 20-23 and 26-30.

Accordingly, Applicant respectfully submits that the invention claimed in claims 1-4, 6, 12-15, 17, 20-23 and 26-30 is not anticipated by Carlbom under 35 U.S.C. § 102(e) and respectfully requests the withdrawal of the rejection of the claims.

Rejections under 35 U.S.C. § 103

Claims 5 and 16

Claims 5 and 16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Carlbom in view of Guo, U.S. Patent 6,353,678.

Guo discloses detecting moving objects in video. However, Guo does not teach or suggest a search area that is defined by a desired correlation between efficient compression and semantic accuracy as claimed in independent claims 1 and 12, from which claims 5 and 16 depend. Moreover, Guo does not teach or suggest the use of matching pixels in such a search area to compute a motion vector as claimed in independent claims 1 and 12. Because Carlbom fails to teach or suggest these claimed elements, the combination cannot be properly interpreted as rendering obvious Applicant's invention as claimed in claims 5 and 16.

Accordingly, Applicant respectfully requests the withdrawal of the rejection of the claims under 35 U.S.C. § 103(a) over the combination of Carlbom and Guo.

Claims 7, 18 and 24

Claims 7, 18 and 24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Carlbom in view of Steffens, U.S. Patent 6,301,370.

Steffens discloses detecting and recognizing an object in an image frame. However, Steffens does not teach or suggest a search area that is defined by a desired correlation between efficient compression and semantic accuracy as claimed in independent claims 1, 12 and 20, from which claims 7, 18 and 24 depend. Moreover, Steffens does not teach or suggest the use of matching pixels in such a search area to compute a motion vector as claimed in independent claims 1, 12 and 20. Because Carlbom fails to teach or suggest these claimed elements, the combination cannot be properly interpreted as rendering obvious Applicant's invention as claimed in claims 7, 18 and 24.

Accordingly, Applicant respectfully requests the withdrawal of the rejection of the claims under 35 U.S.C. § 103(a) over the combination of Carlbom and Steffens.

Claims 8-11, 19, 25 and 31

Claims 8-11, 19, 25 and 31 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Carlbom in view of Newman, U.S. Patent 6,154,600.

Newman discloses a media editor. Although Newman's media editor can compress video, Newman does not teach or suggest a search area that is defined by a desired correlation between efficient compression and semantic accuracy as claimed in independent claims 1, 12 and 20, from which claims 8-11, 19, 25 and 31 depend. Moreover, Newman does not teach or suggest the use of matching pixels in such a search area to compute a motion vector as claimed in independent claims 1, 12 and 20. Because Carlbom fails to teach or suggest these claimed elements, the combination cannot be properly interpreted as rendering obvious Applicant's invention as claimed in claims 8-11, 19, 25 and 31.

Accordingly, Applicant respectfully requests the withdrawal of the rejection of the claims under 35 U.S.C. § 103(a) over the combination of Carlbom and Newman.

SUMMARY

Claims 1-31 are currently pending. In view of the foregoing amendments and remarks, Applicant respectfully submits that the pending claims are in condition for allowance. Applicant respectfully requests reconsideration of the application and allowance of the pending claims.

If the Examiner determines the prompt allowance of these claims could be facilitated by a telephone conference, the Examiner is invited to contact Sue Holloway at (408) 720-8300 x3476.


Deposit Account Authorization

Authorization is hereby given to charge our Deposit Account No. 02-2666 for any charges that may be due. Furthermore, if an extension is required, then Applicant hereby requests such extension.

Respectfully submitted,

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